THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

The use of Appreciative Inquiry as a way to empower Solomon Islands beginning science teachers

Dr. Frances Edwards
University of Waikato

Mr. James Porakari
Solomon Islands National University

Teaching science in Solomon Islands

It is important for students to learn about science

Science teachers are in short supply

Research shows that science teachers face a number of barriers when they commence teaching

Work can be stressful and overwhelming for teachers and the work is challenging, particularly for beginner teachers

but….

Little there very little research which focusses on what is going well for teachers, and what we can learn about their strengths, positive experiences and so on.

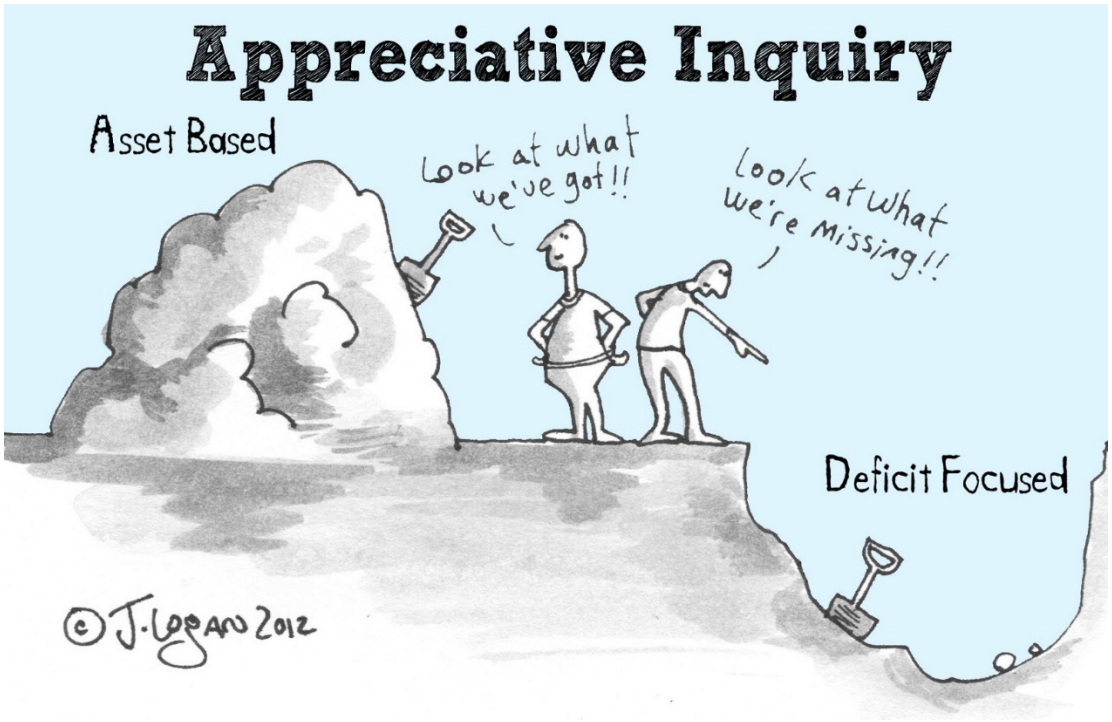
Research questions

What strengths do beginner science teachers identify during their first year of teaching?

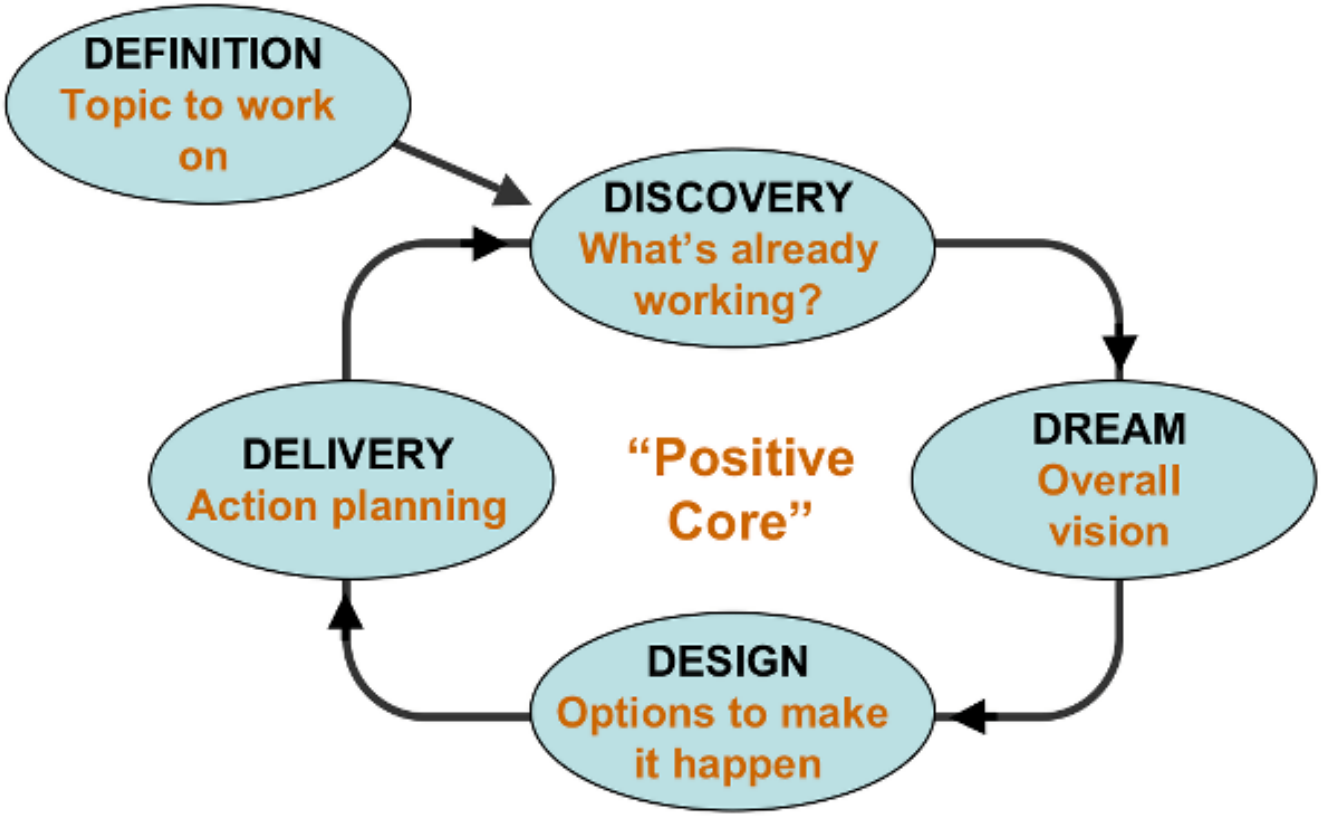
What potential does Appreciative Inquiry hold for exploring beginner science teachers' strengths?

Appreciative Inquiry

- Appreciative Inquiry (AI) is a process, a philosophy grounded in research, demonstrating that focusing on what is working and on aspirations for the future achieves more and does it more quickly and more sustainably, than a focus on solving problems (Cooperrider & Whitney, 2005).
    - The ability for teachers to reflect on positive aspects of their practice and positive experiences may be more beneficial to professional learning than focusing on challenges and weaknesses (Hoekstra and Korthagen, 2011)
- AI is grounded in the actual peak experiences of individuals (Lord, 2005).
    - The AI framework allows the researcher to engage in conversations and discussion with participants on their own terms as they narrate their own stories to convey their best practice.



Appreciative inquiry process



The study

Qualitative study, working with 3 beginner science teachers in Solomon Islands (Year 7-9 science)

1. Discovery – each teacher talked about their 3 best science lessons. These narratives were transcribed and analysed to identify strengths.

When there is lack of resources and science equipment I developed myself to be resourceful rather than just complaining... Science curriculum…namely mangrove, intertidal zone, coral reef and deep-water ocean. I wanted to organise a science field visit to a coral reef beyond the city boundary but due to challenges in finances and transportation, I decided instead to plan a group discussion lesson.

For example, for zinc I went to an outboard motor workshop and searched on old engines to find leftover sacrificial zinc anode. I also went to hardware shops to get iron nails to use as the iron metal, picked empty aluminium cans to be used as aluminium metal and old copper wires for copper metal.

The study

2. Dream – each teacher talked about what their teaching would look like if it was fully aligned with their strengths and aspirations

- *I dream of being a mentor for other science teachers in my department for planning effective science lessons.*
- *I dream I feel confident and not afraid to teach any science concepts required by the science syllabus.*
- *I dream I organise and manage my lessons effectively, creating an effective learning environment for my students.*
- *I dream of being taught about classroom management and organisational skills to create and maintain effective learning environment for my students.*
- *I dream of being taught about improvising different science equipment with simple materials.*
- *I dream of teaching science in a proper laboratory classroom with so many resources and science equipment.*

The study

3. Design – Teacher and researcher worked collaboratively to develop strength based propositions “essence statements”

… that science teachers who are dynamic have an abundance of resources at their fingertips, no matter what area of science they are teaching

… that science teachers who have knowledge of the science content, curriculum and syllabus are able to plan effective science lessons

… that science teachers whose classroom management and organisational skills are effective create and maintain effective learning environments for their students.

The study

4. Destiny – Teacher developed an action plan in order to work towards sustaining the dreamt possibilities

Proposition statement	Action	When
Science teachers who are dynamic have an abundance of resources at their fingertips, no matter what area of science they are teaching.	• Continue to develop materials to use in my science activities via PD workshops, reading and reflective journalling. • Continue sharing with other science staff improvisation skills during in-house training.	• When PD workshops are available and ongoing. • Twice a year and ongoing
Science teachers with knowledge of the science content, curriculum and syllabus are able to plan effective science lessons.	• Continue to develop content and curriculum knowledge and skills via PD workshops, reading and reflective journalling. • Attend in-house training and sharing of new content and curriculum knowledge with other science staff.	• When PD workshops are available and ongoing • Twice a year and ongoing
Science teachers	• Continue to develop	• When PD

Benefits for beginning teachers using this process

- All teachers were able to identify strengths in their work
- A focus on their stories of success generated positive energy and pride for the teachers in this study as they shared their stories. Teachers appreciated being able to speak positively about their work – they found it very affirming
- Teachers were able to articulate their difficulties but focussed on how they overcame them
- Teachers articulated a sense of agency with respect to their challenges. They were able to plan actions that would allow them to build on their strengths

Implications

Appreciative Inquiry is a process with considerable potential to promote teacher development in the Solomon Islands within their ‘villages of learning’.

The implementation of Appreciative Inquiry as part of teacher mentoring and support in Solomon Islands teachers’ early careers has the potential to encourage and strengthen them as they partake and have agency in planning for continued growth and success in their futures.

Porakari, J., & Edwards, F. (2018). Empowering Solomon Islands' beginning science teachers through the use of Appreciative Inquiry. *Waikato Journal of Education, 23*(1), 43–57. doi: 10.15663/wje.v23i1.625

Thank you

frances.edwards@waikato.ac.nz

james.porakari@sinu.edu.sb